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ABSTRACT

In late 1979 and 1980 a survey was conducted of 207 pastoral lease owners and managers in the north of South Australia to determine their education and training requirements. The pastoral industry grazes sheep and cattle on native pastures and shrubs, is beset by widely fluctuating rainfall and production, sells its products of wool and meat on a buyer's market, and faces the problem of insecure land tenure. Most pastoral properties are remote from towns and technical and further education colleges. This isolation poses particular problems in relation to both the acceptance and provision of training. Since the early 1970's, however, pastoralists have become more aware of the need for training with the increasing complexity of vehicles and plants and a decreasing number of employees. The survey clearly indicated need for a formal award in pastoral studies, with training for both property managers and station hands. This vocational area has not been adequately serviced in the past and the proposed initiative would complement existing provisions in rural studies and the Certificate in Farm Practice and Rural Studies Certificate courses. Appendix J reports follow-up action during 1981 in the form of an initial curriculum proposal for two courses. (BRR)

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A SURVEY OF THE EDUCATIONAL AND TRAINING NEEDS OF THE PASTORAL INDUSTRY OF SOUTH AUSTRALIA

FINAL REPORT PREPARED BY

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CONTRIBUTORS TO THE PROJECT

The following groups and individuals have made contributions to the survey:-

1. The Pastoral Industry Training Working Party for assisting with and endorsing project documents including project specification, questionnaires and report documents, and for engaging in follow-up curriculum development work.

2. Officers of the Department of Lands who assisted in the compilation of the survey population.

3. The respondents and other producers who assisted in providing data for the survey.

4. Officers of the ABC Rural Affairs Department and Journalists from The Stock Journal and The Advertiser for publicising the project so that administration of the questionnaire was made much easier than it would have otherwise been.

5. Dean Kuhl for acting as project manager to the stage of initial analysis of data; J. Raftery for acting as project manager thereafter.

6. Andrew Brown for being closely involved as project officer with all phases of the survey, in particular questionnaire design, administration of survey, collation of data and along with J. Raftery in writing up the in-committee project report and the subsequent conversion of it into a public document.

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SUMMARY AND RECOMMENDATIONS

In late 1979 and 1980, a project team, co-ordinated by officers of the Department of Further Education, surveyed pastoral lease holders in the North of South Australia to determine their education and training requirements.

The survey clearly indicated the need for a formal award in pastoral studies, the programme for which would provide training for both property managers and station hands. The following recommendations were made by the Working Party on the basis of the survey data to the Rural Studies Programme Committee in January 1981:-

Follow-up action during 1981 in the form of curriculum development activity is reported in Appendix J where the initial curriculum proposal for two courses is presented.

1. Courses for the pastoral industry should include subjects that embrace skill oriented duties. These should emphasise:

   . mechanical skills,
   . welding skills, and
   . electrical skills,

   particularly in relation to plant and vehicle operation and maintenance. Other duties which have been specified as having a high training demand should also be considered.

2. Courses for the pastoral industry should include subjects embracing managerial duties. These subjects should place the main emphasis on duties involved in the following managerial areas:

   . financial
   . staff
   . land resource management and
   . livestock husbandry and management.

3. The pastoral industry training courses should be practically orientated and specially developed to meet the particular needs of the pastoral industry.

4. Practical assessment procedures should be used wherever possible for pastoral industry training courses.

5. Two courses, each of one week duration, should be offered per year. These may comprise two skills training courses or one skills training and one managerial training course. Given sufficient local demand, additional shorter courses may be held. These would be two days duration or thereabouts.

6. Both skills and managerial training courses should be offered at times suitable for trainees and pastoralists. Generally courses would be offered during the periods April to July and October to November.

7. Urgent consideration should be given to the development of a Pastoral Studies Certificate.

In addition the Working Party submits one further recommendation and requests that it be given very high priority in terms of Department of Further Education staffing.

8. Urgent consideration be given to the appointment of a full-time experienced officer to develop and co-ordinate the pastoral studies programme and to assist in the development of a Pastoral Studies Certificate.

STATEMENT OF STANDARDS

This document is considered to be substantially consistent with the Standards for Evaluations of Educational Programs, Projects, and Materials developed by the Joint Committee on Standards for Educational Evaluation in the United States.

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CHAPTER ONE: INTRODUCTION

1.1 Background and Purpose of the Study

In June 1979 the Rural Studies Programme Committee of the SA Department of Further Education appointed a Working Party to do the following:-

- co-ordinate the ad hoc training programmes then in progress,
- set priorities for future training, and
- make recommendations on pastoral industry training to the Rural Studies Programme Committee.

The Programme Committee,oversees curriculum matters in all rural-oriented courses, in order to make recommendations to the Director-General of Further Education concerning training needs in rural industries. This committee considered that an investigation into the pastoral industry training needs was warranted, as there had been no formal training previously available for Pastoral employees. The Working Party was selected from members of the Department of Further Education, other Government departments, and from the pastoral industry. This Working Party decided that it would be appropriate to conduct an extensive survey to determine the training needs of people working within the Pastoral industry. The survey, which is the subject of this present report, was part of an extensive enquiry and series of consultations over a period of eighteen months. Primary responsibility for the survey was taken by a project team consisting of:-

Andrew Brown	Open College of Further Education
Andrew Nicolson	Pastoralist, Middleback Station, Whyalla
Dean Kuhl	Principal Education Officer, Research Branch
John Raftery	Research Branch

The Working Party reported to the Programme Committee in January 1981, and the recommendations from that report are shown in another section of this report.

This report then, is a formal account of the survey, as well as some of its outcomes. The main aim of the survey was to determine the need for and type of training required by personnel engaged in the Pastoral Industry .

Before describing in detail how this was achieved, it is necessary to give a description of the nature of the pastoral industry, how it is defined, and the nature of the training provided up to the time of the survey.

1.2 Description of the Pastoral Industry

The pastoral industry may be described as that industry which is reliant upon the extensive grazing of sheep and cattle on native pastures and shrubs. Although 'pastoralism' is carried out to a limited extent on Lower Eyre Peninsula and the Lower South East of the State, the Pastoral Zone is generally considered to be the huge arid area of the State which lies beyond the limits of northern agricultural production.

Rainfall in the Pastoral Zone is erratic, non-seasonal and generally between 250 mm and 125 mm per annum. Stock management is extensive and holdings are large, from about 50 km^2 to 30 000 km^2. There are about 350 properties considered to be in the arid and semi-arid pastoral zone and about 240 of these are held on the basis of a pastoral lease. The general terms of a pastoral lease are that Crown Land is leased to pastoralists for a period of 42 years on the payment of an annual rental which approximates 30¢ per head for sheep and $1.50 per head for cattle. Lease conditions include a maximum stocking rate provision.

The pastoral industry is beset by widely fluctuating rainfall and hence production. It also sells its products of wool and meat worth $25-$30 million annually on a buyer's market and faces the problem of insecure land tenure. In these circumstances it is not surprising that the Pastoral Industry had not established a formal training system for its employees.

1.3 Training in the Pastoral Industry

Most pastoral properties are remote from towns and in particular from TAFE colleges. Their isolation poses particular problems in relation to both the acceptance and provision of training.

Until about 1970 the very thought of industry training provided by an agency other than the property itself was a new concept to many pastoralists, but since then limited forms of training have been provided.

This survey was intended to provide more detailed information on the education and training needs of pastoralists. Because of the isolation and the particular nature of the pastoral industry it was considered necessary to ascertain the views of pastoralists separately from farmers whose training needs had been previously identified during development of the Certificate in Farm Practice Course. The only long standing system of training has been the 'Jackaroo' system. A jackaroo is provided with keep and paid a relatively low wage in return for 'training' by the property manager in pastoral managership and practical skills. Obviously one of the main limitations of this method of on-the-property training is the capacity of some property owners or managers to provide this training. Few properties have the technical facilities to provide training in the wide range of technical skills now required by the industry. Only a relatively small number of managers have received jackaroo-type training and even fewer received any formal technical training. In fact only about five per cent have obtained a trade certificate, diploma or degree.

The early 1970's saw dramatic changes in the pastoral industry. Properties were run with far fewer staff than was ever thought possible. Owners and managers were exploring new management techniques and sharing ideas and equipment. A new era had begun. As a result of the pressures applied by both the geographic and economic climates and the increasing complexity of vehicles and plant, pastoralists became more aware of the need for training. To meet these needs, a number of agencies became involved. For example, the first ever residential school for pastoralists in South Australia was conducted by the Department of Agriculture in the Gawler Ranges during 1971. Field days and other extension activities had been organised by the Department of Agriculture for at least 14 years prior to this.

A further development was that pastoralists became more and more aware of the need for new techniques and new technology, and the industry generally became more accepting of new ideas and techniques advanced at meetings and field days conducted by the Department of Agriculture and Industry. Stock and Station agents and the Pastoral Board also had an indirect influence on training by assisting pastoralists with budgeting procedures.

But despite this significant change in attitude towards training during the 1970's, some forward-thinking pastoralists considered that substantially more formal training was required for their industry. So the concept of short, intensive, residential courses was born following discussions in 1975 and 1976 between pastoralists and officers of the Department of Further Education in both Adelaide and at northern colleges.

As a result of continuing liaison between pastoralists and the four northern colleges of further education, five intensive residential courses, each lasting 50 hours, and one shorter course were held between May 1978 and June 1979. A list of all courses held over that period is shown in Appendix A. (Courses planned for the period up to May 1981 are also listed).

1.4 Justification of the Survey

Despite this initial input into pastoral industry training, consultation at a local level suggested that some pastoralists were already seeking a more formalised training method - a training system which would allow employees to acquire the necessary knowledge and skills in an organised training programme extending over a period of several years. These pastoralists considered that this formal training should complement on-the-property training and experience. In this context, then, it was decided to undertake an intensive survey to determine whether or not this need was generally felt in the industry. The survey set out to consider:-

- the types of courses required by the industry,
- the duration, modes of presentation and most suitable venues for such courses,
- the resources available for the conduct of these courses,
- the educational awards most appropriate, and
- the likely student numbers.

There are several unusual features of the methodology required to achieve these aims and these are described in the following chapter.

CHAPTER TWO: DESCRIPTION OF THE STUDY

2.1 Rationale

The task was to determine the training needs of all personnel employed on the pastoral lease properties in the North and Far North of South Australia. Three matters were of major concern:-

1. the design of a suitable instrument,
2. a method of administration which would overcome geographical distribution problems, and
3. a method of data analysis which would determine the need and type of training.

It was decided to construct a questionnaire which would be distributed to a selected sample using several different methods of administration. All this was achieved through consultation with the Working Party members.

2.2 The Sample

The Working Party supported the decision that only pastoral lease owners and managers would be surveyed. The main reasons for this were that they were more readily accessible than station hands and were in a better position to comment on overall training needs.

It was decided to survey only those properties held on pastoral lease as information concerning property area, location, and the owner/manager was available. Similar information about other properties in the pastoral zone was not readily accessible. In any case, the research team considered that there was little difference between the training requirements of properties held on pastoral lease and those on perpetual or miscellaneous lease.

All pastoral lease properties considered atypical were excluded from the survey population. A survey population of 207 properties was derived from a total of 241 pastoral lease properties.

Thirty-four properties were deleted from this base list because they:

- carried less than 1 000 sheep equivalents,
- were managed in conjunction with non-pastoral lease country,
- were used primarily as an Aboriginal reserve and it was considered that their training requirements would be substantially different from standard pastoral enterprises, or

- were judged by Lands Department officers to be atypical of the pastoral properties adjacent to them.

The 207 surveyed properties were divided into three groups on the basis of average sheep equivalents* carried:

- 1 000 - 5 000 sheep equivalents : 62 properties
- 5 000 - 10 000 sheep equivalents : 65 properties
- more than 10 000 sheep equivalents : 80 properties

(* sheep equivalents = number of adult sheep or number of cattle x 5).

Given that there is a total of some 350 properties in the pastoral zone and that the properties excluded are atypical of the industry, it was considered that the survey population and resultant survey sample of 102 properties represented a reasonable representation of the pastoral industry.

By extrapolating from the number of persons working on the 102 respondent properties (page 36) it was estimated that the total number of persons engaged full-time on the estimated 350 properties in the Pastoral zone would be approximately 1 100. This number has been confirmed by the Pastoral Board.

It was decided that the funding provision for the survey allowed for 32 properties to be randomly selected for visiting by the project officer. The division of sub-samples was made according to the proportion of properties in each sheep equivalent category. It was decided that a further 31 properties would be contacted by telephone or by radio transmitter. Once again the sample was randomly selected for each sheep equivalent category in proportion to populations for each category. These 63 properties and all remaining properties received a mailed questionnaire.

The following table summarises this stratification of survey properties. The table also shows the numbers of properties which responded.

TABLE 2.1 SURVEY RESPONSE RATE IN EACH SIZE CATEGORY

Survey Type		Size of property as based on sheep equivalents ('000)			
		1-5	5-10	10	Totals
Visit:	Contacted	9	9	14	32
	Responded	9	9	13	31
Telephone/ Radio:	Contacted	9	10	12	31
	Responded	5	4	8	17
Mail only:	Contacted	44	46	54	144
	Responded	21	14	20	54
TOTAL:	Contacted	62	65	80	207
	Responded	35	27	41	102

2.3 Brief resume of survey method

All 207 survey properties had questionnaires posted to their resident owner/manager with a covering letter which explained whether or not they would be visited or contacted by telephone or radio by the project officer. Those properties to be contacted were given an approximate date of the visit or telephone contact. All property visits were confirmed prior to the visit.

The property visits were conducted in three series. The north eastern properties were visited during the week March 10-14, the Flinders Ranges properties during March 24-28 and the north western properties during April 14-18, 1980.

An extensive mass media publicity programme was integrated with the field visits. A full page story outlining the scope and intent of the survey was published in the Stock Journal immediately prior to the survey whilst the ABC country breakfast session from 5CK broadcast details of the survey, comments and reminders to pastoralists at strategic times throughout the survey period. This assistance given by the ABC Rural Officer at Port Pirie (Peter Knudson) was invaluable.

This meant that all properties were given an opportunity to contribute to the project by submitting a response. It also meant that the purpose of the survey along with the general procedures being used to handle it were generally known. A flow chart showing

the procedures adopted is contained in Figure 2.1

Furthermore, it was argued that, should the set of response arising from face-to-face interviewing during the visits to properties be substantially different from other responses it would be possible to place limitations on the findings. The fact that there were no significant differences between the results from the different sample groups meant that the results from the properties visited by the project officer were not atypical.

2.4 The Survey Questionnaire

The Questionnaire was prepared by the research team in collaboration with the Pastoral Industry Working Party. Four areas of information were sought:-

- the status and educational background of the respondent and employees,
- the importance of pastoral duties,
- the need for training outside pastoral property resources,
- an estimation of the likely demand for training,
- the preferred duration, location and method of course delivery,
- the desirability of a formal award.

The focal point of the questionnaire was the list of occupational duties. These duties were derived through a series of 'workshops' organised by the project team. Because of the difficulty in contacting pastoralists, the pastoralists on the Working Party were used as field input sources. Because the team recognised the limitation in this, the final questionnaire list included opportunities for listing additional duties.

The five main types of duties were:-

1. Permanent improvements, construction and maintenance duties ,
2. Motor Vehicle and plant maintenance ,
3. Routine operational duties ,
4. Occasional duties ,
5. Managerial duties.

The detailed lists are shown in the questionnaire in Appendix I.

FIG. 2.1 FLOW CHART OF SIGNIFICANT ACTIONS IN PASTORAL INDUSTRY SURVEY

Date	Action	Comments
Nov. 1979	P.I. Training Working Party decides to Commission Survey	Beginning of consultation with industry *
	↓	
Jan. 1980	Research Branch (D. Kuhl) directs development of questionnaire	*
	↓	
15/2/80	PIT W.P. Approves Questionnaire	*
	↓	
25/2/80	Trial Questionnaire in Morgan Area	*
	↓	
27/2/80	Publicity appears in "Stock Journal"	*
	↓	
29/2/80	207 Questionnaires posted	
	↓	
early March 1980	Radio Coverage by ABC	*
	Follow up by A. Brown -visits: Telephone; i/view	*
	↓	
End April '80	Data gathering closed	
	↓	
9/5/80 - 11/5/80	Coding completed	
	↓	
19 June 1980	Data processing Complete Printout available	
	↓	
29/9/80 - 24/10/80	Preparation of Working Document	A. Brown & J. Raftery (D. Kuhl in early stages of preparation)
	↓	
7/11/80	Presentation of Working Document to PIT W. Party	*
	↓	
Dec. 1980	Revision of Draft	
	↓	
27/3/81	Presentation of Revised Document to Rural Studies Programme Committee	Endorsed Recommendations *
	↓	
20-21/4/81	Draft of Working Curriculum outline by DFE/producer group Working Party accepts draft	*
	↓	
May 1981	Executive presented with document - rejected	
	↓	
26/7/81	Revised document to Programme Committee	supported unanimously *
	↓	
30/7/81	Presentation of Revised Curriculum proposal to Executive	

* Denotes substantial industry involvement.

2.5 Data Analysis

A detailed account of the analysis procedure is given in the following chapter. The main purpose of this was to quantify the need and demand for training. From this an order of priority could be made of the duties of managers and station hands. Other questions relating to background and course delivery were dealt with more simply. Statistical analysis of data was carried out by the officers of the Department of Further Education Statistics Section using programmes from Statistical Packages for the Social Science. (Nic et al 1979).

CHAPTER THREE: RESULTS: TRAINING REQUIREMENTS IN PASTORAL INDUSTRY

3.1 Occupational Duties in the Pastoral Industry - Need for College Training, Relative Importance of Duties, and Estimates of Manpower Training Demand

Introduction

The following section deals with the training requirements of the Pastoral Industry. The analysis provides a means of assessing the need for training outside of pastoral property resources in each of the occupational duties specified in the survey. This study does not examine on-the-job training requirements, but it does ascertain the relative importance of the duties on-the-job. Estimates of manpower training demand are obtained for each duty. This information provides a basis for making curriculum decisions in relation to training need.

Questions and Collated Data relating to Occupational Duties - Method of Analysis

This section presents the survey data concerning the importance of duties and need for training outside pastoral property resources. The questions appeared as Section B of the questionnaire. The forty-nine occupational duties considered by the survey team to be relevant to the pastoral industry were of two main types: skill centred and managerial duties.

The following questions were asked of each duty:

- How vital is it that your employee(s) should receive training outside property resources (in this duty)?
- How important is it that your employee(s) should be competent (in this duty)?
- How many persons require training (in this duty)?

A summary of the full responses to each of these questions about pastoral duties is listed as Appendix D. Because of the complexity of the data arising from these questions, the original information has been reorganised in the format shown in Table 3.1 overleaf. But before the implications of the table are discussed, a detailed explanation is given of how the table is constructed.

Table 3.1 lists the duties in rank order of response to 'NEED FOR TRAINING OUTSIDE OF PROPERTY RESOURCES'. These percentages were determined by aggregating the last three columns of the 5 point scale, the basis being that respondents selecting one of these three columns would be attaching at least some importance to 'need for training outside property resources'. The remaining respondents attach no importance or at best are very lukewarm in their response. The effect then is to divide the responses into two groups, a conservative estimate of those who see a definite need for training outside of property resources, labelled column A, and those who don't.

The 'IMPORTANCE OF DUTY' data are treated in a similar way in that the respondents are grouped into those who consider importance of duty to be 'some importance', 'very important' or 'essential'. These are listed under column B. The remainder consider the duty to be of 'slight' or 'no importance'. Once again, a conservative estimate is obtained for 'importance of duty'.

The duties are listed in rank order of response to need for training outside property resources and are further subdivided into three 'cut off' groups, these being:-

- more than 54% of respondents consider that there is a significant need for training outside property resources,
- 45-54% of respondents consider that there is a significant need for training outside property resources,
- less than 45% of respondents consider that there is a significant need for training outside property resources.

The responses reported in Table 3.1 can be applied to ALL pastoral properties surveyed on the basis that we are 95% confident that the percentage responses for the duties listed are subject to no more than $\pm$ 4% variation when applied to all properties in the survey population (see Appendix B for details of the survey population). This means that for the cut-off group 'greater than 54%', we can be 95% certain, that when the respondent percentages are applied to ALL property employers, each duty rates 50% or higher for all pastoral property employers. Thus the exact percentages for the respondent employers become a lower limit (or 'cut-off') when applied to all employers. It is this latter group of all employers on which findings are based.

3.1.1 COLLATED DATA FOR OCCUPATIONAL DUTIES AND DEMAND FOR TRAINING.

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TABLE 3.1 DUTIES OF PASTORAL PROPERTY EMPLOYEES LISTED IN RANK ORDER OF PERCENTAGE RESPONSE TO NEED FOR TRAINING, OUTSIDE PROPERTY RESOURCES, PERCENTAGE RESPONSE TO IMPORTANCE OF DUTY, AND NUMBER OF PERSONS REQUIRING TRAINING.

(Details of the survey sample, respondents and analysis procedures are shown in Appendix B)-

SURVEY QUESTION NUMBER	DUTIES	A Responses to need for training outside property resources % indicating some need to vital need	B Responses to importance of duty % indicating important to very important.	C Number of persons on respondent's properties requiring training.
	NEED FOR TRAINING ≥ 55%			
B2.13	Maintain and service motor vehicles	88	98	149
B2.17	Maintain electrical equipment and services on vehicles	86	94	145
B2.14	Maintain windmills and pumps	83	98	135
B2.18	Weld & cut by oxy acetylene & arc	83	95	105
B1.8	Maintain station electrical equip. & services	82	88	124
B5.44	Maintain financial & other records	81	91	95
B5.40	Plan permanent improvements etc.	80	95	92
B5.41	Plan & design buildings & facilities etc.	80	91	91
B5.39	Plan land resource management	80	90	90
B2.15	Operate stationary engines	79	99	134
B5.48	Budget income & expenditure	76	85	89
B5.43	Plan stock management practices etc.	74	92	92
B5.42	Supervise & train staff	73	91	85
B1.2	Plumb domestic & stock water supplies	72	100	105
B1.9	Operate earthmoving & construction machinery	72	91	107
B2.20	Maintain station refrigerators	69	84	100
B5.47	Value stock and wool	69	84	90
B4.32	Fire prevention & control	69	79	97
B5.45	Undertake clerical work	67	82	88
B3.28	Slaughter & butcher sheep/cattle	65	95	103
B3.25.1	Act as sheep hand - muster, yard, draft etc.	65	87	103
B5.46	Purchase materials & services	60	84	81
B5.49	Attend to staff welfare matters etc.	60	82	71
B3.25.2	Maintain sheep health	60	80	88
B2.19	Fabricate & machine fittings & equipment	60	60	100
B2.16	Maintain shearing machinery	57	73	86
B1.1	Construct and maintain fences	56	59	106
B1.4	Construct timber framings	56	59	91
B1.3	Work concrete	55	84	94
	NEED FOR TRAINING 45-54%			
B3.24	Operate motor vehicles inc. motor cyle, trucks etc.	53	99	103
B3.26.1	Act as cattle hand-muster, yard, draft etc.	49	73	92
B3.34	Control plant pests, etc.	49	67	70
B3.33	Control vertebrate pests,etc.	47	77	90
B1.7	Lay bricks	47	42	83
B3.26.2	Maintain cattle health	46	63	70
B3.25.3	Train & Maintain sheepdogs	45	73	67
B1.5	Paint buildings	45	71	85
	NEED FOR TRAINING < 45%			
B3.27	Manage & maintain stock horses	43	55	71
B3.35	Control insect pests eg. locusts	29	39	59
B1.6	Glaze windows	22	34	66

The survey question number is also recorded beside each duty. The questionnaire grouping for each of these duties is:

B1: permanent improvements, construction and maintenance

B2: motor vehicle and plant maintenance

B3: routine operational duties

B4: occasional duties

B5: managerial duties

According to the procedure outlined in the introduction to this section, the duties listed in Table 3.1 can be sorted into three groups.

1. High demand for training outside property resources.
2. Medium demand for training outside property resources.
3. Low demand for training outside property resources.

It is assumed that the training would be provided by a college of further education.

<u>High Demand for Training: Comments, Findings and Recommendations</u>

The 'high demand' group contains all duties regarded as requiring training outside property resources by 55% or more of respondent pastoralists.

This high demand group is for analysis purposes broken down into two sub groups. The first 15 duties were considered by at least 72% of respondents to be important for training purposes.

These are also regarded by most respondents (between 85% and 100%) as duties in which employees should be competent. The number of persons likely to require training is high for each duty.

The second group of 14 duties were regarded by between 55 and 69% of respondent employers to require training. Most of these duties are also seen to be important competencies for employees and to be likely to have a high demand for training.

These 29 duties comprise both skill-centred and managerial duties. Both types are highly ranked in the 'importance of duty' priority list.

(1) <u>Skill centred duties</u> are made up of three types:

- mechanical duties
- electrical duties
- welding

Most of these relate to motor vehicle and the mechanical aspects of plant maintenance rather than non-mechanical aspects of permanent improvements and construction.

Building and related duties were considered by few respondents to be of high priorities.

(2) Three areas of managerial training have been identified

- financial and staff management duties
- land resource management duties
- livestock related duties

It should be noted that there is an evident need for some form of trainer training for managers. The clearest impression of this is that 73% of respondents regard the duty "supervise and train staff" as a training need.

Training in financial management, land resource management, and, to a slightly lesser extent, staff management were highly ranked by respondents, indicating a clear need for pastoral business management and pastoral property management training.

Livestock management and husbandry duties were considered by fewer respondents to have a significant need for training but there is still a significant number of persons requiring training in these duties.

The demand for training in the specified areas can be applied to all pastoral lease properties. Although this demand is being met to some extent in the courses already provided or planned (see Appendix A), there is a clear need for further development. Therefore, the following recommendations are made:

RECOMMENDATION 1

In any development of courses for the Pastoral Industry, both skill-oriented and managerial duties be included. In technical skills training courses, the main emphasis should be on

- mechanical
- welding, and
- electrical maintenance duties

RECOMMENDATION 2

In managerial training courses, priority should be given to:

- financial,
- staff,
- land resource management, and
- livestock husbandry and management duties.

Medium & Low Demand Training:

There are 11 duties for which less than 55% of respondent employers expressed a need for training and most of these are routine operational duties. These are generally regarded as important duties in which employees should be competent and they would be likely to have some training demand. It is likely that the training needs for these duties can be supplied by either the pastoralist or other agencies. Other duties, such as bricklaying, painting and glazing are considered to be less important and to have a low training demand.

Although the numbers of respondents are small, the particular needs expressed should be noted and included where possible in the design of curriculum.

Meeting Particular Local Needs

It should be noted that the demand for training in some of these duties may be high in certain geographical regions (eg. training in the management and maintenance of stock horses is an expressed need in the North West region (see Table 4 in Appendix E).

Adjustments can be made to suit local requirements by referring to collated data in Appendix E. Training requirements outside property resources are categorized for four major districts, these being:

- East of Burra and North East
- Flinders Ranges and Far North East
- Far North West and North West
- Gawler Ranges and Far West

3.2 Delivery Systems

This section reports pastoralists' views on those issues relating to the structure of a course and how it should be provided. Seven areas are covered:-

1. Location of training
2. Duration of skills training for station hands
3. Duration of managerial training
4. Most suitable months for training
5. Methods of Assessment
6. Need for a formal Award
7. Educational background of potential students

The final section was included here because it was relevant to the type of delivery system that might be adopted.

3.2.1. Collated Data for Location of Skills Training

The following table refers to the method by which off-property training should be provided for: permanent improvements, motor vehicle and plant maintenance, routine operational duties and occasional duties.

TABLE 3.2 PREFERENCE OF LOCATION FOR PERMANENT IMPROVEMENTS, MOTOR VEHICLE, PLANT MAINTENANCE, ROUTINE OPERATIONAL DUTIES AND OCCASIONAL DUTIES TRAINING.

Location/method of training	Percentage of respondents
On a local property in an organised educational programme	65
Combination of local property course and college training	35
Combination of local property course and external studies	30
At Further Education College of Centre	26
By external studies (correspondence)	7

Some respondents ranked the method by which training should be given, others gave a single response to this group of questions. Thus these figures show the percentage of respondents who indicated a preference for one or more location.

A very high preference is shown for off-property training provided in an organised educational programme on a local property in a face-to-face teaching situation.

The second preference is for training courses to be provided by the Department of Further Education using the combined venue of a further education centre or college and a local property.

External studies training was acceptable if combined with a local property course but rated the least preferred sole method of training. It is interesting to note here that the Open College has enrolled three students from the 125 or so students who attended the pastoral training courses from May 1978 to November 1980. Most of these students had been made aware of the relevant courses available from Open College. This substantiates the preference shown by the survey for the face-to-face mode of teaching as practiced so far.

The questions detailed in Table 3.2 were not asked in relation to managerial training. However, the responses to questions listed in Table 3.4 relating to frequency and duration of courses show that respondents prefer managerial training courses conducted in an organised educational programme on a local property. So a similar response to that shown in Table 3.1 could be anticipated for preferred location of managerial training.

RECOMMENDATION 3

Pastoral training courses in technical and management skills should be held on a local property in an organised educational programme wherever possible.

3.2.2. Duration of Skills Training

TABLE 3.3 EMPLOYERS' PREFERENCE FOR DURATION OF SKILLS TRAINING IN RELATION TO LOCATION AND METHOD OF TRAINING

Location/method of training	Employers preference for duration of training (as a %)		
	Weekend or short course (2 days)	Full Week (5 days)	Two weeks or longer
On a local property in your area in an organised educational programme	33%	50%	10%
At Further Educational College/ Centre	21%	17%	1%
Combination of local property course and college training	11%	19%	13%
Combination of local property course and external studies	12%	15%	10%
By External Studies (correspondence)	3%	2%	5%

Some respondents ranked their preference for location of training, while others gave a single response to each alternative location. Data were collated by ignoring the respondent rankings and aggregating each entry into the rows and columns above. Each cell entry is expressed as a percentage of the total sample.

Week long or longer skills training courses

Fifty per cent of respondents considered that employees could be spared for week long skills training courses on a local property. A closer examination of the original data shown in Appendix F shows that opinion is fairly evenly divided as to whether employees can be spared once or twice yearly for one week courses, twenty per cent saying once yearly and twenty two per cent saying twice yearly.

Nineteen per cent of respondents considered that employees could be spared for a skills course of one week if conducted on a local property in combination with a college, and thirteen per cent would be released for such courses of two weeks or longer duration.

A much smaller number of respondents would release employees for local courses longer than one week's duration. Eight per cent of respondents would release staff for courses of two weeks duration and three per cent for courses of three weeks or longer held on a local property or at a College or Centre.

Week-end or two day training courses

Thirty-three per cent of respondents would spare employees to attend weekend or two day courses conducted on a local property. Twenty one per cent would release staff to attend these courses at a further education college or centre and eleven per cent would release staff to attend short courses at a local property in conjunction with a college or centre. Approximately one half of the respondents in each category would release staff to attend two short courses a year.

Correspondence Study

Only ten per cent of respondents would spare employees for correspondence study of skills training courses. But combining correspondence study with a local property course was more appealing as thirty seven per cent of respondents would release employees to participate in weekend or week long courses coupled with correspondence study.

Short courses of one week or two days duration held on a local property were clearly preferred by the respondents. There is also a significant demand for one week or two day courses held at a further education college/centre either solely or in conjunction with local property courses.

Approximately one third of respondents would allow employees to attend two one week and two weekend courses held on a local property each year. There is a significant demand for additional one week and two day courses held at a Further Education College or Centre.

RECOMMENDATION 4

Skills training courses of one week's duration and two days duration should be offered twice yearly. These courses should be conducted on a local property wherever possible.

3.2.3. Duration of Managerial Training

The duration of managerial training was considered to be similar to that of skill training as the following table shows.

TABLE 3.4 EMPLOYERS PREFERENCE FOR DURATION OF MANAGERIAL TRAINING IN RELATION TO LOCATION AND METHOD OF TRAINING

Location/method of training	Employers preferences for duration of training for employees (as a %)		
	Weekend or short course (2 days)	Full Week (5 days)	Two weeks or longer
On a local property in your area in an organised educational programme	20%	34%	4%
At Further Education College/ Centre	15%	19%	4%
Combination of local property course and college training	8%	15%	8%
Combination of local property course and external studies	9%	6%	8%
By xternal tudies (correspondence)	2%	3%	12%

Again the preference is for week long or short two day courses conducted on a local property. Longer courses are not favoured for managerial training, neither is correspondence study as the mode of presentation.

Thirty four per cent of respondents considered that employees could be spared for week long courses on a local property, twenty per cent favouring one course a year.

Nineteen per cent of respondents indicated that employees could attend week long managerial courses at a College or Centre, fifteen per cent indicating attendance for one such course a year.

Twenty per cent of respondents considered that employees could attend weekend or two day courses on a local property, twelve per cent indicating attendance at two short courses each year.

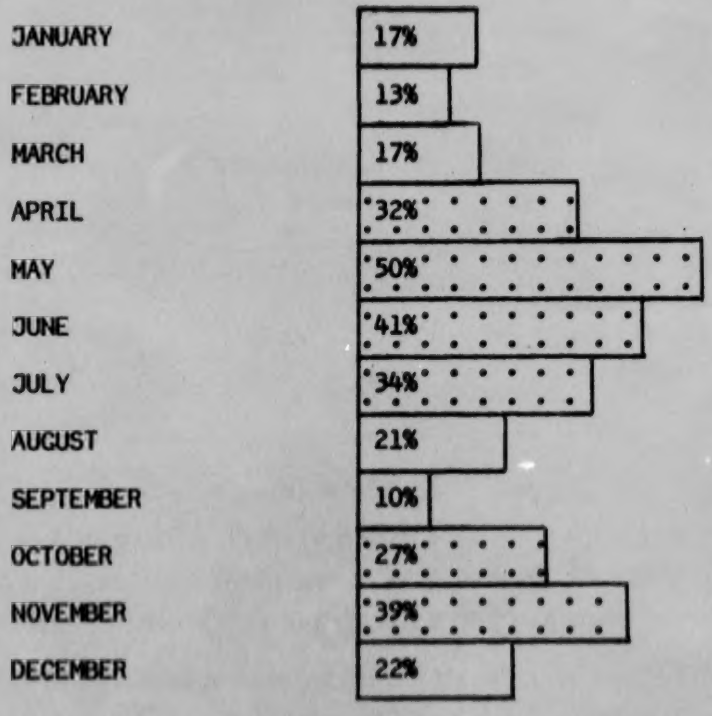
RECOMMENDATION 5
Managerial training courses should be offered for one weeks duration or two days duration. These courses should be conducted on a local property.

3.5.4. Most Suitable Months For Training

Respondents were asked to specify the most suitable months in which to provide off-property training.

The histogram shows the percentage of respondents indicating preference for each month. Respondents were allowed to show preference for more than one month.

TABLE 3.5 THE MOST SUITABLE MONTHS FOR TRAINING COURSES RANKED BY RESPONDENTS



The months considered suitable for training by more than a quarter of the respondents are shown in this histogram.

The hot summer months and seasonal duties such as shearing, crutching, marking and branding influence for the availability of employees during particular months of the year.

The two periods most favoured for off-property training are April to July, and October and November. May and June are the most suitable winter months, and November, the most suitable spring month. However, it should be noted that the most suitable months are different in some pastoral districts. Appendix G contains details of regional preferences.

RECOMMENDATION 6
Skills and managerial training courses should be offered at times suitable to the trainees and pastoralists. The periods April - July and October - November are generally preferred by pastoralists.

3.2.5. Methods of Assessment

Preferred method of assessment is shown in the following tables. Preferred method of assessment for off-property training is shown in Table 3.6 and the need for assessment of on-the-job training is shown in Table 3.7.

TABLE 3.6 RESPONSES RANKED ACCORDING TO PRACTICAL, WRITTEN OR VERBAL MEANS OF ASSESSMENT (n = 107)

Method of Assessment	Ranking or respondents according to preferred method of assessment
Practical assessment	75%
Written assessment	23%
Verbal assessment	20%

Seventy five per cent of respondents preferred a practical method of course assessment.

More than three quarters of all respondents preferred practical assessment for training courses. In the development of assessment guidelines for pastoral training courses, the preference for practical methods of assessment should be noted. By practical is meant the ability of a student to apply skills and knowledge in a given situation. Obviously the actual methods of assessment will depend on the skills taught.

RECOMMENDATION 7
Practical assessment procedures should be used wherever possible for Pastoral Industry training courses.

On-the-Job Assessment

TABLE 3.7 RESPONDENTS' ASSESSMENT OF NEED TO ASSESS ON-THE-JOB PERFORMANCE

79% said Yes

21% said No

Seventy six per cent of respondents considered that ON-THE-JOB PERFORMANCE should also be assessed.

'On-the-job performance' refers to assessment of employee's work performance in day to day duties on the property upon which he works. The manner in which this assessment could be carried out and by whom requires further investigation. On the basis of the respondents interviewed, this assessment would be carried out by the employer.

3.2.6. Need for a Pastoral Studies Certificate

Seventy two per cent of respondents considered that students should be awarded a Pastoral Studies Certificate upon satisfactory completion of a certain number of specified courses. Twenty-eight per cent considered that there was no need for the integration of individual courses into a certificate.

TABLE 3.8 RESPONDENTS' OPINION CONCERNING NEED FOR INTEGRATING SUBJECTS TO FORM A PASTORAL STUDIES CERTIFICATE

71%	considered course should be integrated with a certificate upon satisfactory completion
29%	considered there was no need for integration of individual courses into a certificate

Integration of courses into a certificate is considered desirable by most respondents to the questionnaire. This matter was subsequently raised at the time of discussion of the survey findings with the Pastoral Industry Working Party. Support was confirmed for Certificate course(s) to be established.

RECOMMENDATION 8

Urgent consideration should be given to the development of a Pastoral Studies Certificate.

3.2.7. Educational Background of Potential Students

Respondents were asked to provide broad details of their own and their staff's educational background. This information could be useful to persons who develop Pastoral Training Courses.

Numbers of staff who had attained specified levels of general education and who had attended specialist pastoral industry training courses are detailed in Table 3.9.

TABLE 3.9 EDUCATIONAL ATTAINMENT AND PREVIOUS PASTORAL INDUSTRY TRAINING OF PROPERTY AND OTHER STAFF

Highest level of secondary or post secondary education attained and specialist pastoral industry training received	Number of Staff			
	Manager	Overseer	Other Staff	Total Staff
Completed lower secondary (up to & inc. Year 9)	47	22	111	180
Completed upper secondary (up to & inc. Year 12)	41	15	55	111
Completed trade or post-trade certificate	8	3	4	15
Completed diploma or degree	4	-	1	5
Totals of different categories of staff on 102 respondent properties	100	40	171	311
Number of employers/ employees who have attended Further Education Department Pastoral Training Courses	9	3	12	24
Number of employers/ employees who have attended Agriculture Department Courses	4	-	-	4

Approximately half of the managers and nearly two thirds of the other staff on respondent properties attained a lower secondary level of education.

Nine per cent have attended Pastoral Industry training courses conducted by the Departments of Agriculture or Further Education.

Approximately half of the managers and nearly two thirds of the other staff on respondent properties attained a lower secondary level of education. This will necessarily influence what is taught and how it is taught.

Five per cent of all staff have a tertiary qualification and nine per cent have attended Pastoral Industry training courses conducted by the Departments of Agriculture or Further Education.

The educational background of potential students and the practical nature of pastoral property operations can be considered along with responses to previous questions concerning location and duration of training and method of assessment. The main findings in these areas are that:

- courses should be conducted in familiar circumstances, (on a local property in a local working environment)
- courses should be of a short duration, but integrated into a total educational programme, and
- practical assessment is preferred.

Pastoral training courses already conducted by the Departments of Agriculture and Further Education have been practically oriented, blending skills and theory training to meet the needs of pastoral employees. Comments from respondents on survey questionnaires clearly show that these courses have been well received.

Responses to survey questions relating to mode of presentation of pastoral training courses reinforce the need to provide specially developed, practically oriented courses to meet specific training needs within the industry.

RECOMMENDATION 9

Pastoral training courses should be practically oriented and specially developed to meet the particular needs of the Pastoral Industry.

CHAPTER FOUR: CONCLUSIONS AND OUTCOMES

The survey of training requirements in the Pastoral Industry has quite clearly established the need to upgrade the existing training to the status of a formal certificate. This is a vocational education area that has not been adequately serviced in the past and the proposed initiative will complement the existing provisions in rural studies and in particular the Certificate in Farm Practice and Rural Studies Certificate Courses.

The proposal for a course has come about as a result of a close working relationship between pastoralists and the Department of Further Education. The same kind of co-operation will be needed to develop and implement the course.

The new course will have some unique features. The first is that it will be primarily provided outside of DFE Colleges and Centres, on pastoral properties. This will mean the provision of vocational education for some of the most remote areas of the State. For this to be effective close co-operation and sharing, particularly of resources, will be asked of the DFE Colleges serving the pastoral regions. There will also be a need for close co-operation and sharing of resources between DFE and other institutions, such as the Department of Agriculture.

Another feature of the proposed course is its practical orientation. With much of the training provided on pastoral properties, the theoretical component must be provided in a less formal context than a normal classroom. This places heavy demands on the teaching staff who must be practically orientated and able to relate to the pastoralists' needs and situations.

The guidelines for the type of course and delivery system have been clearly enunciated in the survey. Two one week courses and two weekend or two day short courses per year are preferred for skills training. Whilst these courses should be held on pastoral properties where possible, experience over the past two years has shown that pastoralists are also willing to attend courses at colleges subject to satisfactory residential accommodation being available.

The survey indicates that there are some 1 100 potential students who live and work full-time in the Pastoral Zone. In the past two years the Department of Further Education has serviced about ten per cent of these potential students. This suggests that a significant, additional input of both human and financial resources will be required to meet the training needs of the student potential indicated by the survey.

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The courses already conducted by DFE have been well received by the industry. The four Colleges servicing the Pastoral Zone have co-operated well and have been greatly assisted by Open College and other urban colleges in the provision of staff and teaching materials. This co-operation will need to extend and deepen if the Department of Further Education is to fulfil its vocational training role for the pastoral industry.

The major outcome of the survey is the preparation of an initial curriculum proposal for two certificates in the pastoral studies area. (see Appendix J). This was prepared by officers from Research Branch, Curriculum Development Branch and the Open College Rural Studies Department. The proposal was submitted for consideration in July 1981. The proposal has been approved in principle but no final approval can be given until resources are allocated. The success of implementing such a proposal depends on the appointment of an officer to take responsibility for the development of curriculum and its implementation. In times of financial contingencies such an allocation has to be weighed up against the demands on resources in other areas. If such a proposal is implemented then an evaluation should be carried out on its effectiveness.

APPENDIX A SUMMARY OF PASTORAL TRAINING COURSES CONDUCTED BY DEPARTMENT OF FURTHER EDUCATION COLLEGES BETWEEN MAY 1978 AND JUNE 1980, AND COURSES PROJECTED FOR THE PERIOD JULY 1980 - MAY 1981.

DATE	NORTHERN COLLEGE F.E.	PT. AUGUSTA C.F.E.	WHYALLA C.F.E.	NORTH-WEST C.F.E.
1978				
May	Pastoral Mechanics (50hr) 25 students: Mutooroo Stn. May 1978			
July		Pastoral Mechanics (50hr) 24 students: Puttapa Stn. July 23-28, 1978		
November	Pastoral Construction (50hr) 14 students: Pitcairn Stn. Nov - Dec, 1978	Pastoral Welding (50hr) 22 students: Dec 4-8, 1978		
1979				
April		Station Vehicle Maintenance (32hr) 24 students: College Workshop April 17-29, 1979		
May	Pastoral Sheep Management (50hr) 23 students: Manunda Stn. May 1979.			
July		Welding Follow-up (16hr) 12 students: Mundowdna Stn. July 28-29, 1979		
November	Advanced Past. Welding (25hr) 10 students: College Workshop. Nov 30-Dec 2, 1979	Pastoral Construction (50hr) 15 students: Myrtle Springs Stn. Nov 25-Dec 1, 1979.		
December	Pastoral Welding (50hr) 11 students: College Workshop. Dec 2-7, 1979			
1980				
March		Pastoral Electric (50hr) 20 students: Mundowdna Stn. March 16-21, 1980		
May	Past. Water Supplies (50hr) 17 students: Oulnina Stn. May 25-30, 1980		Past. Mechanics (50hr) 14 students: Mt. Ive Stn. May 9-12, 1980	
June		Diesel Engine Maintenance (20hr) 27 students: Mt. Lyle Stn. June 9-11, 14 students: Wirrealpa Stn. June 12-13, 1980.		
	PROJECTED PASTORAL INDUSTRY TRAINING COURSES JULY 1980 - MAY 1981			
1980				
July		Hoof Care & Horseshoeing Leigh Creek, July 19,20, 1980, 13 students.		
September			Weekend Welding (18hr) College Workshop, Sept, 20, 21, 1980(12Ss)	
October		Advanced Station Farriery Cordillo Downs Stn., October, 28,29, 30.	Pastoral Mechanics (50hr) Nonning Station Oct 19-24, 1980	Pastoral Electrics (50hr) Arcoona Stn. Oct 20-24, 1980
November	Pastoral Business Management Pitcairn Station Nov 30-Dec 5, 1980	Pastoral Refrig. (25hr) Muloorina Stn. Nov 17-20, 1980		Horse-breaking (25hr) Nov 24-28,1980
1981				
May	Pastoral Electrics (50hr) Tepco Station, May, 1981			

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APPENDIX B

DISTRIBUTION OF THE SURVEY POPULATION, SURVEY SAMPLES AND OTHER PASTORAL PROPERTIES ACCORDING TO LANDS DEPARTMENT PASTORAL DISTRICTS.

PASTORAL DISTRICT	METHOD OF SURVEY									RESPONDENTS	PROPERTIES IN SURVEY POPULATION	PROPERTIES EXCLUDED	TOTAL PASTORAL LEASE PROPERTIES IN DISTRICT	MOST RELEVANT DFE COLLEGE TO PASTORAL DISTRICT
	Properties visited (SV)			Properties telephoned (ST)			Properties which only had questionnaires posted (P)							
	1*	2*	3*	1*	2*	3*	1*	2*	3*					
1 East of Burra	3		1		1	2	2		1	10	20	5	25**	Northern CFE
2 Broken Hill Line	1	3		2	1	1	5	4	3	20	33	3	37**	
3 Flinders Ranges	4	2	4	1	1	1	7	4	3	27	53	7	60**	Port Augusta CFE
4 Birdsville Track		1	2	1		2		1	1	8	18		18	
5 Oodnadatta area						1	1		1	3	20	1	21	North West CFE
6 Pimba-Kingoonya		2	5			1		1	4	13	30	1	31	
7 Gawler Ranges	1	1	1	1	1		5	4	6	20	33	17	50**	Whyalla CFE
TOTALS	9	9	13	5	4	8	20	14	20	102	207	34	241	

1* respondent property of 1 000 - 5 000 sheep or sheep equivalents
2* " " " 5 000 -10 000 " " " "
3* " " " greater than 10 000 sheep or sheep equivalents.

** excludes pastoral properties on perpetual lease, miscellaneous lease or freehold country.

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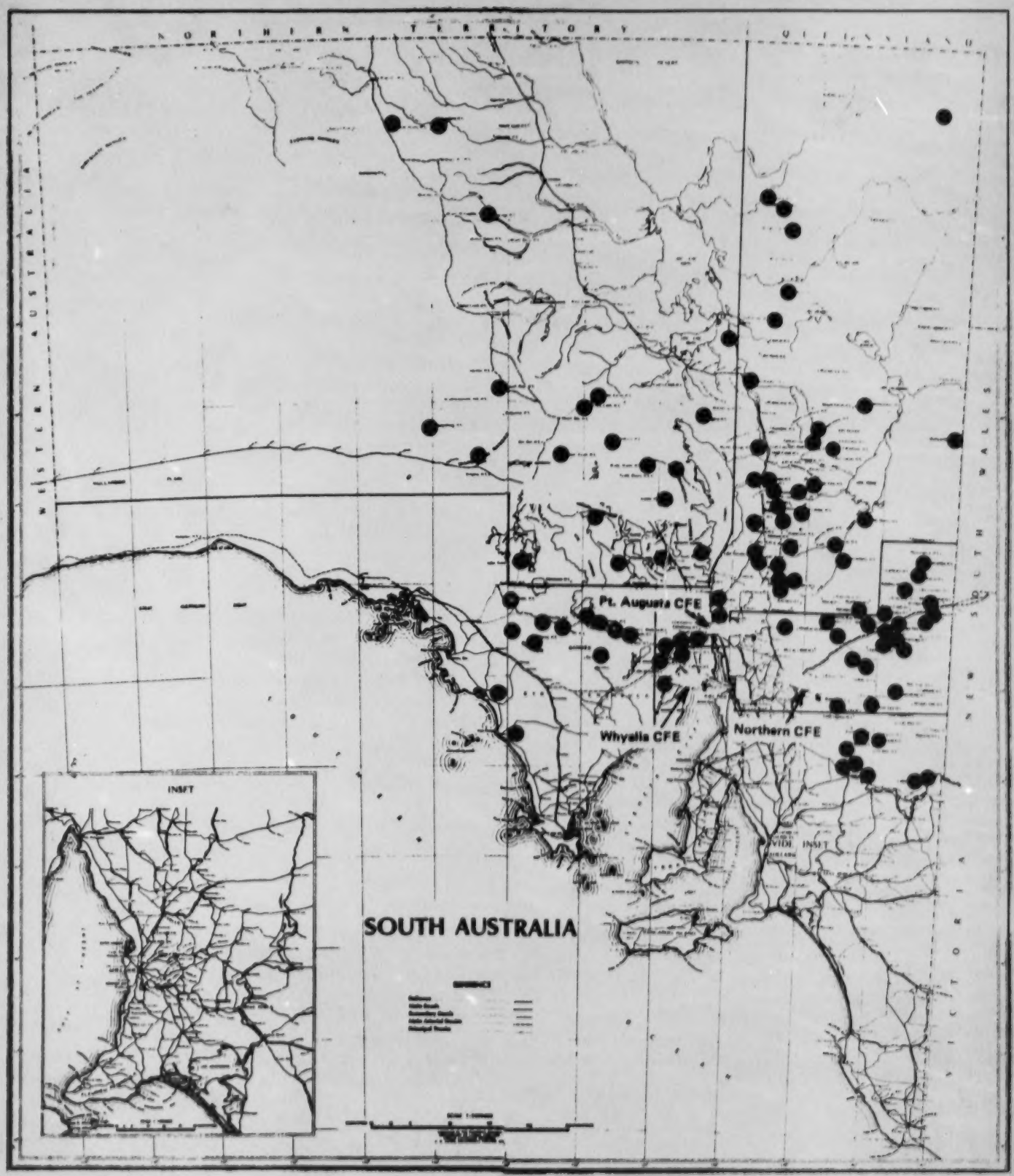
APPENDIX C :

LOCATION OF RESPONDENT PROPERTIES AND AREAS SERVED BY COLLEGES



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Coding of survey questionnaires

Survey questionnaires were coded by:

- survey type: Sv, St, or P, where Sv means sample visted, St means some contacted by telephone or radio transmitter and P means mail contact only.
- property size: carrying 1 000 - 5 000, 5 000 - 10 000, or > 10 000 sheep equivalents.
- questionnaire number
- class of property: cattle only, sheep only or mixed sheep/cattle, and
- location of property by Lands Department Pastoral Districts 1 to 7.

Brief resume of survey method

All 207 survey properties had questionnaires posted to their resident owner/manager with a covering letter which explained whether or not they would be visited or contacted by telephone or radio by the project officer. Those properties to be contacted were given an approximate date of the visit or telephone contact. All property visits were confirmed prior to the visit.

The property visits were conducted in three series. The north eastern properties were visited during the week March 10 - 14, the Flinders Ranges properties during March 24 - 28 and the north western properties during April 14 - 18, 1980.

An extensive mass media publicity programme was integrated with the field visits. A full page story outlining the scope and intent of the survey was published in the Stock Journal immediately prior to the survey whilst the ABC country breakfast session from 5CK broadcast details of the survey, comments and reminders to pastoralists at strategic times throughout the survey period. This assistance given by the ABC Rural Officer at Port Pirie (Peter Knudson) was invaluable.

This meant that all properties were given an opportunity to contribute to the project by submitting a response. It also meant that the purpose of the survey along with the general procedures being used to handle it were generally known.

Furthermore, should the set of responses arising from face-to-face interviewing during the visits to properties be substantially different to those for other responses it would be possible to place limitations on the findings. The fact that there were no significant differences between the results from the different sample groups meant that the results from the properties visited by the project officer were not atypical.

OCCUPATIONAL DUTY What are the knowledge and skill areas required to perform...	IMPORTANCE OF DUTY How *important* is it that your employee(s) should be competent in these areas?						NEED FOR TRAINING How *vital* is it that your employee(s) should receive training outside property resources?						HOW MANY PERSONS REQUIRE TRAINING?
	No importance				Essential	(B) Sum of Scores	Not Required				Vital	(A) Sum of Scores	
... permanent improvement, construction and maintenance duties	0	1	2	3	4	2, 3, 4	0	1	2	3	4	2, 3, 4	
1. Construct and maintain fences			5	41	54	59	27	17	27	22	7	56	106
2. Plumb domestic and stock water supplies			13	30	57	100	18	10	29	28	15	72	105
3. Work concrete	2	14	44	29	11	84	22	23	29	22	4	55	94
4. Construct timber framings	8	33	36	20	3	59	26	18	26	26	4	56	91
5. Paint buildings	5	24	36	29	6	71	36	19	27	17	1	45	85
6. Glaze windows	36	40	16	18		34	49	29	16	6		22	66
7. Lay bricks	24	34	28	11	3	42	34	19	24	19	4	47	83
8. Maintain station electrical equipment & services	7	5	16	44	28	88	12	6	12	34	36	82	124
9. Operate earthmoving & construction machinery (e.g. tractors, graders, scoops)	3	6	17	41	33	91	20	8	21	31	20	72	107
motor vehicle and plant maintenance duties													
13. Maintain and service motor vehicles		1	2	27	70	98	10	2	9	31	48	88	149
14. Maintain windmills and pumps	2		1	24	73	98	13	4	14	27	42	83	135
15. Operate stationary engines		1	6	35	58	99	12	9	23	23	33	79	124
16. Maintain shearing machinery	18	9	22	27	24	73	26	17	18	23	16	57	86
17. Maintain electrical equipment on plant and vehicles	4	2	17	39	38	94	8	6	12	38	36	86	143
18. Weld & cut by oxy acetylene and arc	3	2	8	44	43	95	12	5	13	30	40	83	169
19. Fabricate and machine fittings and equipment	20	20	31	17	12	60	23	17	27	16	17	60	106
20. Maintain station refrigerators: gas/kero/electric	1	15	27	30	27	84	17	14	25	19	25	69	102
routine operational duties													
24. Operate motor vehicles, including motor cycles, trucks.	1		4	20	75	99	25	22	21	12	20	53	103
25. Act as sheep hand & perform the following tasks:													
- muster, yard, draft, castrate, tail, brand, mules, crutch, shear, dip	13			15	72	87	27	8	12	28	25	65	103
- maintain sheep health	17	3	10	29	41	80	30	10	15	22	23	60	92
- train & maintain sheepdogs	23	4	20	26	27	73	37	18	13	18	4	45	103
26. Act as cattle hand & perform the following tasks:													
- muster, yard, draft, brand, castrate, load cattle	2	6	7	19	47	73	37	14	18	18	13	49	97
- maintain cattle health	26	11	13	23	27	63	37	17	14	18	14	46	70
27. Manage & maintain stock horses	29	16	8	20	27	55	38	19	18	16	9	43	71
28. Slaughter & butcher sheep/cattle	3	2	15	33	47	95	21	14	23	25	17	65	90
occasional duties on pastoral properties													
32. Fire prevention & control	10	11	16	27	36	79	28	9	21	20	28	69	97
33. Control of vertebrate pests (e.g. rabbits, dingoes)	9	14	26	29	22	77	37	16	18	16	13	47	93
34. Control of plant pests (e.g. Noogoora burr, Horehound)	18	15	18	31	18	67	33	18	16	22	11	49	70
35. Control of insect pests (e.g. locusts)	33	28	16	15	8	39	47	24	14	10	5	29	59

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managerial duties													
39. Plan land resource management	7	3	8	28	54	90	18	12	12	24	34	80	90
40. Plan permanent improvements, plant maintenance, routine operational and occasional duties	5		6	33	56	95	13	7	24	28	28	80	92
41. Plan & design buildings & facilities (e.g. shearing shed, cattle yards, fencing)	7	2	14	37	40	91	15	5	24	34	22	80	91
42. Supervise and train staff	6	3	4	29	58	91	17	10	19	25	29	73	95
43. Plan stock management practices, e.g. breeding, feeding, marketing	5	3	6	23	63	92	15	11	16	17	41	74	92
44. Maintain financial & other records	5	4	8	28	55	91	13	6	14	32	35	81	94
45. Undertake clerical work	10	8	20	35	27	82	17	16	24	24	19	67	87
46. Purchase materials & services	5	11	18	35	31	84	21	19	26	22	12	60	81
47. Value stock and wool	10	6	13	35	36	84	15	16	13	24	32	69	90
48. Budget income & expenditure	10	5	8	29	48	85	19	5	12	23	41	76	88
49. Attend to staff welfare matters. For example, their health, safety, personal survival, education & education of their children	10	8	15	29	38	82	22	18	16	21	23	60	71

Explanation of "A" the number of respondents scoring 'need for training' as either 2,3, or 4 are added together to provide a %.
"B" " " " " " 'importance of duty' " " " " " " " " " " " "

A & B are used as single value parameters of need for training and importance of duty

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APPENDIX E TRAINING REQUIREMENTS IN EACH PASTORAL DISTRICT

The broad outline of the desirable course components has already been described in the body of the report. In this section the need for and numbers requiring training in each district are shown. This is intended as a guide for the planning of course delivery. Again it needs to be borne in mind that the numbers of employees requiring training must be regarded as a probable estimate of demand only and not a guarantee of the numbers who will take up a course or topic.

Table 1 defines the location of the Pastoral Districts referred to in subsequent tables and their approximate relationship to relevant D.F.E. College boundaries.

TABLE 1: Location of Pastoral Districts and approximate areas served by relevant Department of Further Education Colleges.

Relevant D.F.E. College	Number and Name of Department of Lands Pastoral District	Approximate Extent of District
Northern College (Peterborough)	1 east of Burra	north of the River Murray and east of Burra and Peterborough to the N.S.W. border
	2 North-East	adjacent to the Broken Hill railway line from Peterborough to Broken Hill and south of Lake Frome
Pt. Augusta C.F.E.	3 Flinders Ranges	north of Pt. Augusta to Marree, east of Lake Torrens and west to the N.S.W. border
	4 far North-East	north and east of Marree to the N.T., Qld. and N.S.W. borders
North West C.F.E. (Woomera)	5 far North-West	north west from Marree to Alice Springs, with Oodnadatta as the main centre
	6 North-West	Coober Pedy to Lake Gairdner and west to Mungala, with Woomera and Kingoonya as the main centres
Whyalla C.F.E.	7 Gawler Ranges and far West	west of Pt. Augusta to the Nullabor plain, north of Buckelboo and south of Lake Gairdner

The tables following show the expressed need for training and the numbers who might be available for training in each of the districts. The duties are grouped under the five main headings

Table 2	Duties associated with permanent improvements, Construction and maintenance.
Table 3	Motor Vehicle and Plant Maintenance.
Table 3	Motor Vehicle and Plant Maintenance.
Table 4	Routine Operational Duties.
Table 5	Occasional duties on pastoral properties.
Table 6	Managerial Duties.

TABLE 2: Permanent Improvements, Construction and Maintenance duties by District: number of Pastoralists expressing need for training and specified number of employees likely to require training.

Duty	Northern College				Pt. Augusta College				North-West College				Whyalla College			
	1		2		3		4		5		6		7			
	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Total No.	
Construct & Maintn. Fences	5	9	13	17	15	26	5	21	2	3	7	19	11	12	107	
Plumbing & Water	7	11	15	21	18	28	6	16	3	3	11	16	14	12	107	
Work Concrete	5	9	13	16	14	25	4	14	3	2	8	14	10	12	91	
Construct Timber Frames	4	8	12	13	15	22	5	16	1	2	8	15	11	13	89	
Paint Buildings	4	8	9	19	16	20	3	16	0	2	5	13	8	9	86	
Glaze Windows	1	6	5	14	6	14	3	11	0	1	6	13	3	11	70	
Lay Bricks	3	7	10	18	16	25	4	15	0	1	8	14	8	10	90	
Maintain Elect. Equip.	8	12	17	26	26	38	6	17	3	2	10	20	14	11	126	
Operate Earthmoving	7	13	15	18	20	28	5	15	2	3	10	20	14	12	109	
Number of surveyed properties in District	9		21		29		8		3		12		20		102	
Approx. number of Pastoral lease properties in district	25		37		60		18		21		31		50		241	

TABLE 3: Motor Vehicle and Plant Maintenance duties by District: number of pastoralists expressing need for training and specified number of employees likely to require training.

Duty	Northern College				Pt. Augusta College				North-West College				Whyalla College		
	1		2		3		4		5		6		7		
	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Total No.
Motor Vehicles	7	12	17	25	25	40	7	23	3	5	11	25	19	21	141
Windmills & Pumps	5	9	16	23	23	36	7	21	2	4	11	23	20	21	137
Operate Engines	6	10	17	25	23	37	7	23	2	3	11	23	14	16	137
Maintain Shearing Machinery	5	8	16	22	15	23	0	2	0	0	9	20	12	13	88
Maintain Electrical Equipment	8	12	17	23	27	40	7	25	3	1	11	24	15	19	144
Welding & Cutting	7	12	16	26	24	37	7	21	3	1	10	23	18	20	103
Fabricate & Machine Fittings	4	7	10	23	18	27	6	16	2	2	9	16	12	13	104
Maintain Refrigerators	6	8	13	17	18	23	7	18	3	2	11	21	12	12	101
Number of surveyed properties in District	9		21		29		8		3		12		20		102
Approx. number of Pastoral lease properties in district	25		37		60		18		21		31		50		241

TABLE 4: Routine Operational Duties by District: Number of Pastoralists expressing need for training and specified number of employees likely to require training.

Duty	Northern College				Pt. Augusta College				North West College				Whyalla College		Total No.
	1		2		3		4		5		6		7		
	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	
Operate Motor Vehicles etc.	4	8	11	13	11	23	3	14	1	3	10	23	13	17	101
Sheep hand muster etc.	6	9	16	22	18	29	0	2	0	1	10	26	16	16	105
Sheep hand - Sheep health	6	7	16	19	16	24	0	2	1	1	7	12	14	17	82
Sheep hand - Sheep dogs	4	8	7	14	13	18	0	2	1	0	6	13	14	13	58
Cattle Hand - muster etc.	2	5	11	17	16	24	3	14	1	4	8	17	9	11	92
Cattle Hand - Stock health	2	6	13	19	13	16	4	9	3	3	5	10	7	11	74
Manage Stock horses	2	5	8	8	16	24	4	15	2	4	5	7	6	8	71
Slaughter & Butcher	4	9	14	16	18	26	3	14	1	3	11	22	15	12	102
Number of surveyed properties in District	9		21		29		8		3		12		20		102
Approx. number of Pastoral Lease properties in district	25		37		60		18		21		31		50		241

APPENDIX E

TABLE 5: Occasional Duties on Property by District: Number of Pastoralists expressing need for training and specified number of employees likely to require training.

Duty	Northern College				Pt. Augusta College				North-West College				Whyalla College				
	1		2		3		4		5		6		7				
	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.			Total No.
Fire Prevention & Control	6	9	15	23	17	22	2	7	1	3	9	16	13	16			96
Control Vertebrate Pests	4	8	13	21	14	22	3	11	1	3	6	16	8	10			91
Control Plant Pests	5	8	11	16	15	21	1	3	1	1	6	10	11	10			69
Control Insect Pests	3	8	5	15	10	16	2	5	1	1	4	5	5	8			58
Number of surveyed properties in District	9		21		29		8		3		12		20				102
Approx. number of Pastoral lease properties in district	25		37		60		18		21		31		50				241

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TABLE 6: Mangerial Duties by District: Number of Pastoralists expressing need for training and specified number of employees likely to require training.

Duty	Northern College				Pt. Augusta College				North-West College				Whyalla College		Total No.
	1		2		3		4		5		6		7		
	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	Need	No.	
Plan Land Resource Management	6	7	15	15	20	23	4	14	3	4	9	12	15	15	90
Plan permanent Improvements	6	6	17	16	23	24	5	15	3	4	10	12	18	15	92
Plan & Design Buildings	5	6	16	13	22	24	5	18	3	4	11	12	19	14	91
Supervise a Training Staff	5	6	14	13	20	17	6	19	2	4	11	12	16	11	82
Plan Stock Management	6	6	17	15	17	21	6	17	3	4	10	13	16	15	91
Maintain Records	7	7	15	17	22	26	6	14	3	4	11	12	19	15	95
Clerical Work	6	7	12	16	18	20	6	15	3	4	9	12	15	14	88
Purchasing	5	6	14	14	14	18	5	13	3	4	8	11	13	15	81
Value Stock & Wool	6	6	13	15	23	26	4	14	2	4	10	12	13	14	91
Budgetting	7	7	14	14	20	24	6	12	3	4	10	12	18	16	89
Staff Welfare	5	4	13	16	17	16	5	11	1	2	9	12	12	10	71
Number of surveyed properties in District	9		21		29		8		3		12		20		102
Approx. number of Pastoral lease properties in district	25		37		60		18		21		31		50		241

APPENDIX F NUMBER OF TIMES EMPLOYEES CAN BE SPARED TO ATTEND SKILLS AND MANAGERIAL TRAINING COURSES OF DIFFERING DURATION AT ALTERNATIVE LOCATIONS.

| LOCATION OF TRAINING | CATEGORY OF TRAINING | DURATION AND FREQUENCY OF TRAINING | | |

APPENDIX G APPROPRIATE TIMING FOR TRAINING COURSES IN EACH PASTORAL DISTRICT

In the main body of the report the most preferred months of training were detailed. To assist Colleges in planning course delivery the respondent's preference for training are shown here for each district. Since respondents were allowed to nominate more than one month, column totals in the table exceed the total number of respondents in each district. However, it is possible to estimate the months which would be most appropriate by comparing the numbers showing preference with the total number in the district or college.

TABLE : Demand for training in each month by district

	Northern College F.E.		Pt. Augusta C.F.E.		North-West C.F.E.		Whyalla C.F.E.
Pastoral District	1	2	3	4	5	6	7
January	0	1	8	4	1	1	5
February	0	2	3	6	0	0	3
March	4	5	1	1	2	1	4
April	7	9	11	0	0	1	5
May	7	10	17	1	0	6	9
June	1	5	19	2	1	7	6
July	1	4	16	3	1	4	6
August	1	4	9	2	0	3	2
September	1	1	2	1	0	4	2
October	3	7	5	3	2	4	4
November	2	12	10	3	0	6	6
December	1	5	5	4	0	4	2
Total No. of Respondents	9	21	29	8	3	12	20

Note: In the combined data, May and November were the most preferred months. The data here indicates some variance from that in district 4, the Marree-Birdsville area, where February is preferred, presumably because this month suits the beef cattle operators.

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APPENDIX H: SAMPLE LETTER ACCOMPANYING QUESTIONNAIRES SENT TO PARTICIPANTS.

Dear Sir,

The Research Branch of the Department of Further Education (D.F.E.) has been asked to determine the training needs of the pastoral industry so that a comprehensive industry based training programme can be developed.

You are probably aware of the pastoral training courses already conducted by the D.F.E. colleges at Peterborough and Port Augusta. These one week residential courses and weekend courses have already provided some 40 or more pastoral employees with valuable training in mechanical, building, sheep management and welding skills. We now need to know from the industry:

- the most important skills and subjects in which training should be provided;
- the duration of such training;
- where this training should be provided;
- the likely number of trainees.

To provide the D.F.E. with this important information a questionnaire has been prepared which I earnestly request you to complete and return in the self addressed envelope. This questionnaire has been fully endorsed by the United Farmers and Stockowners Association, by pastoralists and D.F.E. staff who have been developing and co-ordinating the pastoral industry courses so far.

The questionnaire has been prepared so that most questions can be answered by a tick or a short statement - so please do not be daunted by the number of pages! The information you and others provide will be invaluable for the planning of a state-wide pastoral indusry training programme.

All pastoral lessees with properties which carry more than 1 000 sheep equivalents are being sent this questionnaire. Approximately 15 percent of lessees will be visited on their property in connection with the questionnaire whilst another 15 percent of lessees will be contacted by telephone or radio.

You have been selected at random from a list as a property to be contacted by telephone or radio. To assist you with any queries you may have with the questionnaire, Andrew Brown, the Rural Studies Lecturer conducting the survey, will contact:

North Eastern properties during 10 - 21 March

Flinders Ranges properties during 23 March - 3 April

Gawler Ranges and North Western properties during 13 - 25 April.

Andrew Brown and the educational researcher Dean Kuhl will analyse the answers which will individually remain confidential and then discuss

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the overall preferences and trends at mid-year pastoral region meetings of the United Farmers and Stockowners Association before final conclusions and recommendations are prepared. You will have the opportunity of discussing the questionnaire findings at these meetings.

I am confident that you will complete and return the questionnaire so that the best possible training programme can be developed for this major industry which hitherto has received scant training opportunity.

Yours sincerely,

(L.A. KLOEDEN)
DIRECTOR-GENERAL OF FURTHER EDUCATION

APPENDIX I: COPY OF SURVEY QUESTIONNAIRE

ANOTHER BOOST FOR EDUCATIONAL TRAINING IN THE OUTBACK

STOCK JOURNAL
28, February, 1980

(this wording on the cover page of the questionnaire is the same as the title of a feature article in the Stock Journal which described the Pastoral Training Survey.)

SOUTH AUSTRALIAN DEPARTMENT OF FURTHER EDUCATION

SURVEY OF PASTORAL INDUSTRY TRAINING REQUIREMENTS

QUESTIONNAIRE TO PROPERTY OWNER/MANAGER

The purpose of this survey is to establish a detailed picture of Department of Further Education training requirements for the pastoral industry along with trends and future needs. The information will be used to assess and, if necessary, adjust existing courses. All information will be treated as strictly confidential.

Should you have any queries about this survey, please do not hesitate to contact:-

J. Brook (John)	Emeroo Station via Port Augusta	Phone (086) 43 6306
A.L. Brown (Andrew)	Open College of Further Education 208 Currie Street Adelaide 5000	Office phone (08) 212 3622 Home phone (08) 79 2108
A.D. Nicolson (Andrew)	Middleback Station via Whyalla	Phone (086) 45 5105
D.H. Kuhl (Dean)	Research Branch, Department of Further Education Box 2352, G.P.O. Adelaide 5001	Office phone (08) 227 4299
R. Sangster (Dick)	Tepco Station via Cockburn	Phone Mingary 3
R. Treloar (Richard)	Mooleulooloo Station via Olary	Broken Hill Outpost Radio 9KW

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SECTION A: GENERAL INFORMATION

The following information relates to the operation of the property to which this questionnaire has been sent.

1. Name of property .....

   Address .....Post Code.....

   Name of person filling out this questionnaire ..... Phone No.....

   Telegraphic address .....

   Please indicate by ticking the appropriate box whether you are:

   a non resident lessee, or ☐

   a resident lessee, or ☐

   a manager, or ☐

   other (please specify) ☐

INSTRUCTIONS FOR COMPLETING THE REMAINING SECTIONS OF THE QUESTIONNAIRE

You are asked in the (remaining) four sections of this questionnaire to answer questions which indicate:

* how important that employees should be competent in various skill areas
* how vital is it that employees receive training outside of property resources, that is, off the property
* the method by which training should be given
* future training requirements and previous level of training

The following examples indicate how the questions are asked and how they should be answered:

	IMPORTANCE OF SKILL AREA				
	No importance	Slight	Some	Very Important	Essential
If it is very important that your employee should be able to construct and maintain fences, then indicate thus	0	1	2	(3)	4
If the requirement for training beyond property resources is slight for the task of "Working Concrete" then indicate thus	0	(1)	2	3	4

Other questions can be answered by placing a tick, number or comments in the space provided.

SKILL AREA CATEGORIES

The skills and specialist knowledge requirements for managing and maintaining pastoral properties have been summarised under five main areas:-

* construction and maintenance of permanent improvements
* motor vehicle and plant maintenance
* routine operational duties
* occasional duties, and
* managerial duties

While there may be omissions from these five broad areas we believe that the duties listed are sufficient for the purpose of this first survey into the training needs of the Pastoral Industry. Will you please focus your attention on the training needs for each of these major topic areas as detailed on the following pages.

SECTION B: OCCUPATIONAL SKILL AREA

The jobs listed on the following pages are considered to be relevant to the pastoral industry

Please indicate your opinion on:

* how important it is that your property should have person(s) competent in these areas, that is, persons who are able to carry out the job without supervision under normal station conditions

* how vital it is that each person(s) receive training for the particular job off the property and without using property resources. An estimate of the number of persons requiring training would be appreciated.

3.1 Permanent improvements, construction and maintenance duties

It is assumed that employees are generally responsible for carrying out the following construction and maintenance duties.

Employees should have the knowledge and skills to perform the following operations:	IMPORTANCE OF DUTY How *important* is it that your employee(s) should be competent in these areas? (Circle the relevant number) No importance			Essential		NEED FOR TRAINING How *vital* is it that your employee(s) should receive training outside property resources? (Circle the appropriate number) Not Required				Vital	ESTIMATE OF NUMBER OF PERSONS REQUIRING TRAINING
1. Construct and maintain fences	0	1	2	3	4	0	1	2	3	4	☐
2. Plumb domestic and stock water supplies	0	1	2	3	4	0	1	2	3	4	☐
3. Work concrete	0	1	2	3	4	0	1	2	3	4	☐
4. Construct timber framings	0	1	2	3	4	0	1	2	3	4	☐
5. Paint buildings	0	1	2	3	4	0	1	2	3	4	☐
6. Glaze windows	0	1	2	3	4	0	1	2	3	4	☐
7. Lay bricks	0	1	2	3	4	0	1	2	3	4	☐
8. Maintain station electrical equipment & services	0	1	2	3	4	0	1	2	3	4	☐
9. Operate earthmoving & construction machinery (e.g. tractors, graders, scoops)	0	1	2	3	4	0	1	2	3	4	☐
10. Other (please specify)	0	1	2	3	4	0	1	2	3	4	☐
11.	0	1	2	3	4	0	1	2	3	4	☐
12.	0	1	2	3	4	0	1	2	3	4	☐

B.2 Motor vehicle and plant maintenance

	IMPORTANCE OF DUTY					NEED FOR TRAINING					NUMBER REQUIRING TRAINING
13. Maintain and service motor vehicles	0	1	2	3	4	0	1	2	3	4	
14. Maintain windmills and pumps	0	1	2	3	4	0	1	2	3	4	
15. Operate stationary engines	0	1	2	3	4	0	1	2	3	4	
16. Maintain shearing machinery	0	1	2	3	4	0	1	2	3	4	
17. Maintain electrical equipment on plant and vehicles	0	1	2	3	4	0	1	2	3	4	
18. Weld & cut by oxy acetylene and arc	0	1	2	3	4	0	1	2	3	4	
19. Fabricate and machine fittings and equipment	0	1	2	3	4	0	1	2	3	4	
20. Maintain station refrigerators: gas/kero./electric	0	1	2	3	4	0	1	2	3	4	
21. Other (please specify).....	0	1	2	3	4	0	1	2	3	4	
22.	0	1	2	3	4	0	1	2	3	4	
23.	0	1	2	3	4	0	1	2	3	4	

B.3 Routine operational duties

	IMPORTANCE OF DUTY					NEED FOR TRAINING					NUMBER REQUIRING TRAINING
24. Operate motor vehicles, including motor cycles, trucks.	0	1	2	3	4	0	1	2	3	4	☐
25. Act as sheep hand and perform the following tasks:											
- muster, yard, draft, castrate, tail, brand, mules, crutch, shear, dip	0	1	2	3	4	0	1	2	3	4	☐
- maintain sheep health	0	1	2	3	4	0	1	2	3	4	☐
- train and maintain sheepdogs	0	1	2	3	4	0	1	2	3	4	☐
26. Act as cattle hand and perform the following tasks:											
- muster, yard, draft, brand, castrate, load cattle	0	1	2	3	4	0	1	2	3	4	☐
- maintain stock health	0	1	2	3	4	0	1	2	3	4	☐
27. Manage and maintain stock horses	0	1	2	3	4	0	1	2	3	4	☐
28. Slaughter & butcher sheep/cattle	0	1	2	3	4	0	1	2	3	4	☐
29. Other (please specify)	0	1	2	3	4	0	1	2	3	4	☐
30.	0	1	2	3	4	0	1	2	3	4	☐
31.	0	1	2	3	4	0	1	2	3	4	☐

B.4 Occasional duties on pastoral properties

	IMPORTANCE OF DUTY					NEED FOR TRAINING					NUMBER REQUIRING TRAINING
32. Fire prevention and control	0	1	2	3	4	0	1	2	3	4	☐
33. Control of vertebrate pests (e.g. rabbits, dingoes)	0	1	2	3	4	0	1	2	3	4	☐
34. Control of plant pests (e.g. Noogoora burr, Horehound)	0	1	2	3	4	0	1	2	3	4	☐
35. Control of insect pests (e.g. locusts)	0	1	2	3	4	0	1	2	3	4	☐
36. Other (please specify)	0	1	2	3	4	0	1	2	3	4	☐
37.	0	1	2	3	4	0	1	2	3	4	☐
38.	0	1	2	3	4	0	1	2	3	4	☐

B.5 Managerial duties

It is assumed that managers and overseers are generally responsible for carrying out the following duties. These persons should have the knowledge and skills to perform or supervise the following operations:-

	IMPORTANCE OF DUTY					NEED FOR TRAINING					NUMBER REQUIRING TRAINING
39. Plan land resource management	0	1	2	3	4	0	1	2	3	4	☐
40. Plan permanent improvements, plant maintenance, routine operational and occasional duties	0	1	2	3	4	0	1	2	3	4	☐
41. Plan and design buildings and facilities (e.g. shearing shed, cattle yards, fencing)	0	1	2	3	4	0	1	2	3	4	☐
42. Supervise and train staff	0	1	2	3	4	0	1	2	3	4	☐
43. Plan stock management practices, e.g. breeding, feeding, marketing	0	1	2	3	4	0	1	2	3	4	☐
44. Maintain financial and other records	0	1	2	3	4	0	1	2	3	4	☐
45. Undertake clerical work	0	1	2	3	4	0	1	2	3	4	☐
46. Purchase materials and services	0	1	2	3	4	0	1	2	3	4	☐
47. Value stock and wool	0	1	2	3	4	0	1	2	3	4	☐
48. Budget income and expenditure	0	1	2	3	4	0	1	2	3	4	☐
49. Attend to staff welfare matters. For example, their health, safety, personal survival, education and education of their children	0	1	2	3	4	0	1	2	3	4	☐
50. Other (please specify).....	0	1	2	3	4	0	1	2	3	4	☐
51.	0	1	2	3	4	0	1	2	3	4	☐
52.	0	1	2	3	4	0	1	2	3	4	☐

SECTION C

C.1 Method by which training should be given

Please indicate the method(s) by which training in *permanent improvements, motor vehicle and plant maintenance, routine operational duties and occasional duties* should be carried out.

Tick the appropriate box(es) for the location where you think that the training should be provided.

On local property in an organised educational programme	☐
At Further Education College or Centre	☐
Combination of local property course and college training	☐
By external studies (correspondence)	☐
Combination of local property course and external studies	☐
Other (please specify)	☐
.....	☐

In the appropriate boxes in each row write the number of times that you consider your employee(s) can be spared for mainly *skills* training during each year. Make sure to use only the location(s) you chose in the previous question.

LOCATION OF TRAINING	NUMBER OF TIMES YOUR EMPLOYEES CAN BE SPARED EACH YEAR FOR TRAINING				
	Weekend or short course (2 days)	Full Week (5 days)	Two Weeks	Three Weeks	Longer Than Three Weeks
On a local property in your area in an organised educational programme					
At Further Education College or Centre					
Combination of local property course and college training					
By external studies (correspondence)					
Combination of local property course and external studies					
Other (please specify)					

Any other comments (particularly in regard to courses longer than 3 weeks)

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C.2 Please describe the preferred location and duration of *managerial* training for you or your employees

LOCATION OF TRAINING	NUMBER OF TIMES YOUR EMPLOYEES CAN BE SPARED EACH YEAR FOR TRAINING				
	Weekend or short course (2 days)	Full Week (5 days)	Two Weeks	Three Weeks	Longer than Three Weeks
On a local property in your area in an organised educational programme					
At Further Education College or Centre					
Combination of local property course and college training					
By external studies (correspondence)					
Combination of local property course and external studies					
Other (please specify)					

C.3.1 Which are the most suitable months of the year for training courses to be offered? (Please tick the appropriate boxes)

January	☐	July	☐
February	☐	August	☐
March	☐	September	☐
April	☐	October	☐
May	☐	November	☐
June	☐	December	☐

3.2 Should students taking courses be given the opportunity of being assessed to ensure that specified levels of skills and knowledge are attained?

Yes ☐ No ☐

3.3 If yes, please indicate the preferred methods of assessment by ticking the appropriate boxes

Practical Assessment	☐
Written Assessment	☐
Verbal Assessment	☐

3.4 Do you consider that on-the-job performance (in the work situation) should be assessed?

Yes ☐ No ☐

3.5 Individual courses could be integrated to form a pastoral studies certificate programme. Do you consider that students completing a certain number of specified courses should be awarded a certificate?

Yes - courses should be integrated with a certificate upon satisfactory completion ☐

No - no need for integration of individual courses into a certificate ☐

3.6 Any other comment on the above questions .....

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SECTION D: FUTURE TRAINING REQUIREMENTS

D.1 Are there any training requirements additional to those already mentioned which could be needed in the next five years? (Please specify)

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.69.

Beyond 5 years:

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D.2 Are there any other comments that you would like to make about present and future training requirements for the pastoral industry (particularly in relation to technological changes e.g. wool harvesting, electric fencing)?

Present:

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Future (please state the technological change and alongside it the possible training requirements)

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SECTION E: LEVEL OF EDUCATION AND PASTORAL TRAINING RECEIVED

E.1 What was the highest level of education completed by you and your staff?

LEVEL OF EDUCATION	MANAGER	OVERSEER	NUMBER OF OTHER STAFF
Completed lower secondary (up to and including year 9)			
Completed upper secondary (up to and including year 12)			
Completed a post secondary programme (a) diploma, degree			
(b) trade or post trade certificate			

E.2 Please indicate any specialised pastoral industry training completed or being undertaken by you or your staff.

TYPE OF TRAINING	MANAGER	OVERSEER	NUMBER OF OTHER STAFF
Dept. of Further Education Pastoral Courses, e.g. Pastoral Mechanics			
Dept. of Agriculture Course, e.g. Gawler Ranges Beef School			
Other (please specify)			

E.3 Please detail any comments you may have concerning the specialised pastoral industry training already undertaken by you or your staff.

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THANK YOU FOR YOUR ASSISTANCE

APPENDIX J

COURSE PROPOSAL: PASTORAL STUDIES CERTIFICATE (Extract from the initial curriculum proposal)

The proposal is to develop two certificates, a Certificate in Pastoral Practice to service the skills need of the Pastoral Industry, and a Certificate in Pastoral Management, to service the management needs. The Pastoral Studies Certificate would be based on the model developed to service the needs of farmers in SA; The Certificate in Farm Practice. This course requires study over two years and involves a mix of "on property" and "off property" activities. The "off property" activities include a range of educational, training, and extension services, eg. block releases to DFE institutions and other Agricultural educational establishments, property and industry visits, producer meetings, field days, short courses and weekend schools.

The "on property" activities of the Certificate in Pastoral Practice are unique; they are the key to the whole concept as they involve industry facilities and staff as the major teaching resource. This "on property" part of the course is on a full time basis, except for time away on "off property" activities and spans three full years. These learning experiences are structured and recorded in a log book where a record of satisfactory completion is maintained.

1. The Certificate in Pastoral Practice

The proposal is to develop a course specifically aimed at meeting the skills training needs of employees in the pastoral industry, using the successful Certificate in Farm Practice course as a model. The course would need to span three full years to ensure that the student experiences as large a range of climatic conditions as possible. The "off property" activities to be known as class contact activities would occur over the three years and would involve a range of venues. The chief venue would be pastoral properties where accommodation is available (shearers quarters and related facilities) and where all classes can be kept as practical as possible. When specialist equipment required, eg. welding, mechanical, engineering, appropriate DFE venues or other suitable venues would be used.

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As with the Certificate in Farm Practice the structuring of the industrial training while in the work situation is a key concept in this course proposition. A log book of skills will be developed by a course development committee (see 3.3), the teaching of these skills being the responsibility of the employer, supervisor or manager of the trainee. This person is called the trainer and will also, in conjunction with the course co-ordinator, be responsible for assessing these skills. Emphasis will be on mastery; trainees will be expected to persevere until they can perform the required skill to an acceptable standard and at an acceptable rate.

Development of the Log Book

The Log Book required in the Certificate in Pastoral Practice will be developed by a committee formed by the Pastoral Industry Working Party, or industrial advisory group. The survey documents has already pointed to a wide range of skills that will be learned and assessed in the work situation.

2. Certificate in Pastoral Management

The pastoral industry not only requires educational programmes aimed at speeding up the acquisition of the practical work skills, it also needs courses to develop the managerial skills required to successfully operate these pastoral enterprises. The industry believes that managers should emerge from within its own ranks (2.3b) and that a sound grounding in practical skills area is required first. Thus the Certificate in Pastoral Practice or the equivalent (in terms of courses or experience) will be a pre-requisite to this management course. The aim of the Certificate in Pastoral Management is to upgrade the enterprise, personnel and business management skills of present managers and to train future managers in all these aspects of management in a pastoral setting. As with the ractice ertificate this certificate will span three years and will be complemented by work experience in an appropriate position in the industry; this work experience will not be structured and supervised.

COURSE PREPARATION, SUMMARY

Certificate in Pastoral Practice

Pre-requisite - employed in the industry

Course Part A - Satisfactory completion of Log Book

Part B - Class contact

TOPICS

Compulsory (300 hours)

Pastoral Mechanics
Pastoral Water Supply
Pastoral Building Construction
Pastoral Welding
Pastoral Health/Survival/Safety
Pastoral Sheep Husbandry
Pastoral Cattle Husbandry

Electives (100 hours)

Pastoral Sheep Husbandry or
Pastoral Cattle Husbandry
Fire Control
Motor Cycle Maintenance
Motor Behicle Maintenance (4 wheel drive)
Horse Breaking
Horse Husbandry
Hoof Care and Maintenance
Pastoral Diesel Mechanics

Classification

TAFE	TAFEC	FIELD
3	2	6

Certificate in Pastoral Management

Pre-requisite - satisfactory completion of Cert. in Pastoral Practice or equivalent.

Course Part A - three years work experience

Part B - Class contact in conjunction with A.

TOPICS

Compulsory (200 hours)

Pastoral Sheep Management
Pastoral Cattle Management
Pastoral Business Management
Range Land Management
Pastoral Staff Management

Electives (200 hours)

Pastoral Sheep Management
Pastoral Cattle Management
Objective Clip Preparation
Pastoral Communication (Electronics)
Horse Management
Pastoral Electricity
Advanced Welding
Pastoral Refrigeration
Pastoral Earthmoving
Fitting and Turning
Fire Control Co-ordination
Application of New Technology

TAFE	TAFEC	FIELD
2	2	6